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Difference in Condom Use Among Sexually Active Males at Historically Black Colleges and Universities

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Abstract

Black men who have sex with men (MSM) and black men who have sex with both men and women (MSMW) may not perceive themselves to be part of the larger gay community and hence may not heed prevention messages aimed at the community.

Objective and Participants—To better understand the participants behaviors, the authors examined differences in condom use between black MSM/W (including MSM and MSMW) and men who have sex with women (MSW) at historically black colleges and universities (HBCUs).

Methods—A paper-and-pencil questionnaire survey investigated sexual behaviors of 1,865 freshmen from 35 HBCUs during the 2001–2002 school year.

Results—MSM/W were about 0.37 times less likely to always use condoms compared with MSW (adjusted odds ratio = 0.63, 95% confidence interval = 0.42–0.95). Sexual behavior, age at survey, total family income, and religion were also associated with condom use.

Conclusions—These findings offer new directions for sexually transmitted disease and HIV prevention aimed at a highly marginalized population that remains at high risk for infection.

Keywords

black/African American; condom use; human immunodeficiency virus; men who have sex with men; sexually transmitted disease

In the United States, 5% to 7% of men self-identify as men who have sex with men (MSM); yet, in 2005, MSM (231,893) accounted for 67% of all men and 54% of all people diagnosed

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with acquired immunodeficiency syndrome (AIDS).¹ (Conventionally, the term MSM/W refers to the men who have sex with both men and women. For the purpose of this study, the term MSM/W refers to 2 groups: men who have sex with men [MSM] and men who have sex with both men and women [MSMW].) Moreover, human immunodeficiency virus (HIV) surveillance indicates that MSM are at an elevated risk of contracting HIV and other sexually transmitted diseases (STDs).¹ These facts also hold true for black MSM.^{1,2}

Data from a study conducted in 5 large US cities suggested that HIV prevalence among black MSM (46%) was more than twice that among white MSM (21%).³ Innovative HIV prevention strategies are needed to address the health disparity that exists for black MSM/W. Several studies have raised concerns that prevention programs directed toward the white MSM/gay male community may not reach MSM/W, particularly black MSM/W. Those programs and interventions may not influence social networks that reinforce reductions in high-risk behaviors.^{2,4,5} Black MSM/W who do not frequent venues in the larger gay community may not perceive themselves to be part of that community and hence may not heed prevention messages aimed at the general population.^{2,6,7}

Education is needed to increase HIV prevention and safer sex practices among black MSM/W. These efforts must be met by addressing unique issues in the black gay, lesbian, bisexual, and transgendered (GLBT) communities, including coping with homophobia from members of the church community, feeling fear of family rejection, keeping their same-sex sexual activity a secret, and facing the rising cases of HIV/AIDS.^{8–11} Moreover, in an effort to provide education to the black MSM/W community, involvement of leading black institutions is essential. Thus, historically black colleges and universities (HBCUs) are in a pivotal position to effect change.

Considering that college is a time when young adults move toward more independence (eg, living away from home, having less contact with parents), they may begin to explore a number of behaviors, including sex. Despite the critical nature of this transition, few researchers have focused on students at HBCUs, and even fewer have focused on students who engage in sex with same-sex partners. However, research indicates that college men, when compared with noncollege men, were more likely to report meeting sex partners at bars and dance clubs, on the Internet, or over telephone chat lines.¹²

A better understanding of the sexual practices of MSM/W at HBCUs will assist HIV educators in their effort to develop HIV prevention programs for black MSM, particularly at HBCUs. With the growing incidence rates of HIV infection among black students on HBCU campuses,¹² research is needed to identify sexual identity, sexual behavior, and condom use among this population. Colleges and universities are charged with producing the world's future leaders; thus, increasing the rate of HIV testing and education among college and university students, including HBCU students, is crucial.

Apart from abstinence, proper condom use is an effective means of preventing the transmission of HIV/AIDS and other STDs.¹ Several investigators have studied condom use among college students,^{13–17} but few have examined whether correlates of condom use differ for black college students. The existing studies suggest that perceived barriers, sex, and intention to use a condom were significant predictors of condom use; other variables, such as age, HIV/AIDS risk behavior knowledge, cues to action, and health locus of control, were not significant predictors of condom use.^{13–17} However, these researchers did not examine whether these findings hold true among MSM/W students at HBCUs.

As of June 2007, a thorough review of previous literature revealed that investigators in only 1 study had explored sexual practices of black MSM/W, including college students. Fitzpatrick et al¹⁸ found that black MSM/W college students, HIV positive and negative,

were less likely than were nonstudents to self-identify as gay. MSM/W college students were also more likely to have had more lifetime sex partners. This study sheds light on the differences in sexual practices between college students and nonstudents. To our knowledge, no researchers to date have examined the differences in sexual practices between MSM/W and MSW freshmen at HBCUs. A better understanding of the different sexual practices (eg, consistent condom use) among black MSM/W and MSW at HBCUs is needed. This knowledge is important to better develop HIV prevention programs tailored for MSM, particularly black MSM/W, who may not heed or have access to HIV prevention messages.

Our goal in conducting this study was to examine the differences in condom use among freshman MSM/W and MSW at HBCUs. Considering that previous research suggests that openly gay men with a supportive network have reduced the level of internalized homophobia and thereby reduced risk behavior,^{2,19,20} we hypothesized that black MSM/W would be less likely to consistently use condoms than would black MSW. In addition, we hypothesized that this would hold true even after controlling for other factors, such as age, residence location, sexual behavior, income, and religion.

METHODS

Participants and Procedure

We used data from the 2001 HBCU Substance Abuse Survey (HSAS),²¹ which the National HBCU Substance Use Consortium conducted with funding from the Center for Substance Abuse Treatment. The Consortium's major goals are to assess drug use and sexual behaviors at designated institutions. Participating schools were 35 HBCUs located in 17 states in the southern, midwestern, and eastern regions of the United States, primarily located in the south and mid-Atlantic areas of the United States. The HSAS is a 55-question paper-and-pencil instrument divided into 7 content areas, such as demographic data, family and social history, religion and spirituality, and sexual behaviors. Consortium officials administered the HSAS during freshman orientation, freshman classes, and assemblies organized for survey administration during the 2001–2002 school year. Only freshmen were eligible to participate in the survey. The survey responses were anonymous. MayaTech Corporation implemented the survey, and its institutional review board (IRB) deemed the survey exempt; Morgan State University IRB committee approved this study with secondary data analyses. A total of 10,546 respondents participated in the study, 10,132 of whom were non-Hispanic black students. MayaTech officials informed students of the survey and that participation implied consent. A total of 3,741 black students reported as male, of which 2,152 reported the sexual identity of their sexual partners. Researchers further restricted the analytic sample to 1,865 students who provided complete information on their condom use.

Measures

The HSAS includes carefully designed self-report questions on demographic data, religion and spirituality, substance use, and sexual behaviors. Condom use is a categorical dependent variable. For this study, condom use was assessed with the question, "Do you or your partner use condoms during sexual activity?" Response options included *yes, always*, *sometimes*, and *never* as response options. Researchers further categorized the responses into *yes, always*, and *sometimes/never*.

The primary independent variable for the analyses was sexual identity. Researchers placed participants in 1 of 2 categories on the basis of reported sexual behavior: MSM/W or MSW. MSM/W were those who reported their sexual partner as homosexual or bisexual. Participants who reported their sexual partner as heterosexual were classified as MSW.

Students were asked, “How often have you participated in any of the following sexual activities?” The sexual activities included anal and oral sex. The responses included *never*, *once*, *some of the time*, *most of the time*, and *all of the time*, and researchers collapsed them into categories of no more than once (never or once) and more than once (some, most, or all of the time). The investigators created a new variable indicating sexual behavior by further collapsing responses to the 2 questions. The students were grouped into 4 categories: no more than once for oral sex, no more than once for anal sex; more than once for oral sex, no more than once for anal sex; no more than once for oral sex, more than once for anal sex; and more than once for oral sex, more than once for anal sex.

Other independent variables were age, income, importance of spirituality and religion, and living status. Age was self-reported and categorized as 19 years or younger or 20 years or older. Total household income was self-reported and coded as (1) < \$30,000, (2) \$30,000–\$75,000, or (3) \$75,000. One question assessed the importance that students placed on spirituality and religion: “How important is religion/spirituality in your life?” with responses of *extremely important*, *very important*, *somewhat important*, or *not at all important*. The students were further grouped into 2 categories: not at all/somewhat important or extremely/very important. The students were asked, “Where do you currently live?” and respondents were categorized into 2 groups: on campus or off campus.

Data Analysis

Researchers generated frequency distributions for the categorical variables. In addition to condom use, they compared the differences in STD infection history or HIV testing by sexual identity. Then they examined condom use. The investigators used chi-square analyses to determine whether there were any differences in condom use among students in different categories of sexual identity, sexual behavior, living status, religion, and family income. They conducted logistic regression modeling to determine whether condom use was associated with sexual identity before and after adjusting for other covariates, such as age, religion, income, living status, sexual behavior, and school.

RESULTS

The black male students whom the researchers excluded from the analyses were not significantly different from the black male students whom they included with respect to age distribution, family income, importance of religion, and living condition (on or off campus).

Of the 1,865 eligible participants, 99% were single. Most students (87%) resided in on-campus housing. In addition, 88% percent of the students were aged 19 years or younger, and 12% were 20 years or older at the survey. Compared with MSW, MSM/W reported significantly lower rates of always condom use (53.6% vs 65.4%; $\chi_1^2[1, N = 1,865] = 8.8, p = .003$), higher rate of lifetime STD infection (15.7% vs 5.4%; $\chi_1^2[1, N = 1,802] = 23.9, p < .001$) and higher rate of ever HIV testing (55.6% vs 40.2%; $\chi_1^2[1, N = 1,832] = 13.6, p < .001$), which may be a proxy of HIV infection. Table 1 presents selected sample characteristics. Twelve students (0.8%) reported having anal sex more than once but having oral sex no more than once. Compared with the students who reported no more than once to oral and anal sex (69.3%), the students who reported more than once only for oral sex (61.7%) and the students who reported more than once for oral and anal sex (50.0%) had lower rates of condom use ($\chi_3^2[3, N = 1,594] = 22.6, p < .001$). Students aged 20 years or older at the time of the survey reported lower rates of condom use (52.5%) than did students aged 19 or younger (66.1%; $\chi_1^2[1, N = 1,846] = 15.7, p < .001$). Students who reported total family income of higher than \$30,000 had higher rates of condom use (65.5%–67.0%) than did students who reported total family income of less than \$30,000 (59.6%; $\chi_2^2[2, N =$

1,727] = 7.9, $p = .019$). The rate of condom use did not differ significantly by religion or campus living.

Table 2 shows odds ratio (OR) estimates that the researchers made on the basis of the logistic regression models before and after adjusting for other covariates. MSM/W were 0.37 times less likely to always use condoms when compared with MSW students (adjusted OR [aOR] = 0.63, 95% confidence interval [CI] = 0.42–0.95, $p = .029$). In our examination of the relationship between sexual behavior and condom use, compared with men who reported being involved no more than once in anal or oral sex, students who reported having had oral sex more than once but having had anal sex no more than once were less likely to use condoms (aOR = 0.68, 95% CI = 0.51–0.90). Students who reported having had anal sex more than once, regardless of oral sex status, were also less likely to use condoms (aOR = 0.54, 95% CI = 0.36–0.81). Students aged 20 years or older were less likely to use condoms than were students aged 19 or younger (aOR = 0.67, 95% CI = 0.45–0.98). Compared with the students reporting family income less than \$30,000, students with family income of \$30,000 to \$75,000 were more likely to always use condoms (aOR = 1.36, 95% CI = 1.03–1.78); however, students with family income higher than \$75,000 were not significantly different from those with family income less than \$30,000. Religion was not significantly associated with condom use before adjusting for covariates, but students reporting religion as *not at all important* or *somewhat important* were less likely to always use condoms than were students reporting religion as *extremely important* or *very important* after the researchers adjusted for other covariates (aOR = 0.74, 95% CI = 0.57–0.96). Living on or off campus was not associated with condom use either before or after adjusting for other covariates.

COMMENT

The major finding of this study is that MSM/W students were less likely to use condoms than were MSW, even after considering related factors. Because this study included MSM/W students on HBCU campuses, the investigators found associations that others may not have because of limited access to this population or lack of funding to study the sexual practices of MSM/W on HBCU campuses. Hence, these results offer new directions for HIV prevention among a marginalized group that remains at high risk for infection.

In this study, MSM/W were more likely to have had an STD infection or been tested for HIV than were their MSW counterparts. This is consistent with several reports that indicate that MSM/W are at high risk for STDs/HIV.²² Moreover, these reports suggest that with the high rate of HIV infection in the black community, black MSM/W on HBCU campuses may be at increased high risk for HIV infection, and the need for established HIV prevention programs on HBCU campuses is important.

Although HIV prevention programs exist in the black community, they may not be helpful for black MSM/W, particularly those who keep their sexual behaviors a secret. Of major concern is that services are not reaching a significant amount of black MSM/W, some of whom are students at HBCUs. In a retrospective study involving surveillance records, the Centers for Disease Control and Prevention²³ indicated that an epidemic exists among college students, primarily black MSM/W for all new HIV diagnoses in men younger than 30 years residing in 34 counties in North Carolina. A similar disparity exists for the largest city in Maryland: although black residents represent 64.3% of the population in Baltimore, they represent 88% of all reported AIDS cases.²⁴

Because earlier studies show a disparity in condom use among black people and among black MSM/W, it is important to explore innovative prevention efforts to reduce the

prevalence of HIV infection in black women and MSM/W. Enhancing communication between sex partners is crucial. Moreover, reducing felt and enacted stigma related to sexual orientation or being MSM/W is an important focus for HIV prevention. MSM/W who keep their sex behaviors a secret still experience discrimination and do not feel safe to disclose their sexual orientation or HIV status because of the fear of being discriminated against. Hence, the perceived stigma creates barriers for serostatus disclosure and encourages this population to keep their sex lives a secret.^{25–28}

Another issue of concern is that in this population, rates of condom use were lower for MSM/W than for MSW. These results remained consistent after the investigators adjusted for age, income, religion, and sexual behavior. A possible interpretation of these findings is that MSM/W have less of a support system to encourage safer sex practices. In addition, many male students must cope with being part of a marginalized and ostracized group with few venues in which to gather support. Previous researchers have indicated the importance of social networks on HIV risk behaviors.^{20,29}

Interpretation of the findings should take into account a number of limitations. Self-reported data may under- or overestimate the rate of condom use. In addition, the researchers did not directly assess the students' sexual identities. Instead, they assessed them through respondents' reports on their sexual partners. Although this way may stimulate the responses to the related questions, it may also affect the accuracy of the measurement. We also acknowledge the possible bias caused by missing values. Of all of the black male students surveyed, about half (1,865) reported condom use and sexual identity; however, the excluded sample was similar to the analytic sample regarding the demographic information and importance of religion. The similar distributions in these variables support the assumption of missing at random and that deletion of the students without complete information on the 2 variables may not affect the validity of estimates.

The use of a self-report questionnaire such as the one used here reduces the potential for social desirability bias relative to interviewer-administered surveys. An additional caveat must be considered in interpreting these results: the questionnaire did not include variables that would have allowed the researchers to compare condom use among respondents reporting anal sex with those reporting all other sex. These data would have been important because anal and vaginal unprotected sex are among the most frequent routes of STD/HIV transmission. Considering these limitations, the findings demonstrate the need for STD/HIV prevention programs developed for MSM/W students at HBCUs. These programs should include education and methods to increase safer sex practices, such as condom use for oral and anal sexual behavior, to prevent HIV and STDs.

Interventions targeting black males on HBCUs should incorporate support for MSM/W who experience internalized and externalized homophobia. Black men who keep their sex behaviors a secret may be ashamed and stigmatized for participating in sex with another man and may subsequently participate in sexual encounters with other men in secret, despite having sex with women. These men require expanded and targeted STD/HIV prevention programs to enhance awareness about safer sex practices and the need to protect their sexual partners, especially noting that women are more likely to be exposed to HIV through sexual contact with MSM/W and intravenous drug users.¹⁸

Similar to their involvement in the Civil Rights movement, HBCUs are in a pivotal position to change the climate in the black community for gay, lesbian, bisexual, and transgendered (GLBT) people through education, open discussions, research, and infusing GLBT issues in course content. These institutions can also lead the way for STD/HIV prevention through similar avenues. Students at HBCUs are trained to be future leaders in many disciplines;

hence, many of these students will be influential. With the appropriate knowledge and skills they may be the nucleus for encouraging and activating safer sex practices among the black community to decrease new STD/HIV infections. In an effort to increase STD/HIV prevention and safer sex practices among the black community, education is needed. In addition, the unique issues in the black GLBT community—including coping with the black church, fear of family rejection, the issue of keeping sex behaviors secret, and the rising cases of STDs and HIV/AIDS—must be addressed.

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TABLE 1
 Condom Use for Selected Characteristics in a Sample of HBCU Male Students (*n* = 1,865)

Characteristic	Total		Never or sometimes		Always		<i>p</i>
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	
Sexual identity							
MSW	1,710	91.7	591	34.6	1,119	65.4	.003
MSMW	155	8.3	72	46.5	83	53.5	
Sexual behavior ^a							
No, no	410	25.7	126	30.7	284	69.3	<.001
Yes, no	990	62.1	379	38.3	611	61.7	
No, yes	12	0.8	2	16.7	10	83.3	
Yes, yes	182	11.4	91	50.0	91	50.0	
Age (y)							
19 or younger	1,625	88.0	551	33.9	1,074	66.1	<.001
20 or older	221	12.0	105	47.5	116	52.5	
Campus living							
On campus	1,474	87.0	508	34.5	966	65.5	.303
Off campus	221	13.0	84	38.0	137	62.0	
Total family income							
<\$30,000	555	32.1	224	40.4	331	59.6	.019
\$30,000–\$75,000	787	45.6	260	33.0	527	67.0	
>\$75,000	385	22.3	133	34.6	252	65.5	
Importance of religion							
Extremely/very	1,375	74.0	475	34.6	900	65.5	.111
Not at all/somewhat	482	26.0	186	38.6	296	61.4	

Note. HBCU = historically black colleges and universities; MSW = men who have sex with women; MSMW = men who have sex with both men and women.

^aOral sex more than once, anal sex more than once.

TABLE 2
 Logistic Regression on Condom Use in Relation to Sexual Identity and Sexual Behavior Before and After Adjusting for Demographic Characteristics and Other Covariates Among HBCU Male Students (*n* = 1,865)

Characteristic	Unadjusted			Adjusted		
	OR	95% CI	<i>p</i>	OR	95% CI	<i>p</i>
Sexual identity						
MSW	1.00	Reference		1.00	Reference	
MSMW	0.61	0.44–0.85	.003	0.63	0.42–0.95	.029
Sexual behaviors ^a						
No, no	1.00	Reference		1.00	Reference	
Yes, no	0.72	0.56–0.91	.008	0.68	0.51–0.90	.007
No/yes, yes ^b	0.48	0.34–0.68	< .001	0.54	0.36–0.81	.003
Age (years)						
19 or younger	1.00	Reference		1.00	Reference	
20 or older	0.57	0.43–0.75	< .001	0.67	0.45–0.98	.038
Campus living						
On campus	1.00	Reference		1.00	Reference	
Off campus	0.86	0.64–1.15	.303	0.94	0.65–1.36	.747
Total family income						
< \$30,000	1.00	Reference		1.00	Reference	
\$30,000–\$75,000	1.37	1.09–1.72	.006	1.36	1.03–1.78	.028
> \$75,000	1.28	0.98–1.68	.071	1.17	0.84–1.62	.343
Importance of religion						
Extremely/very	1.00	Reference		1.00	Reference	
Not at all/somewhat	0.84	0.68–1.04	.111	0.74	0.57–0.96	.023

Note. CI = confidence interval; HBCU = historically black colleges and universities; MSW = men who have sex with women; MSMW = men who have sex with both men and women; OR = odds ratio. Unadjusted ORs were based on logistic regression models without adjustment for any other covariate. Adjusted ORs were based on logistic regression models with adjustment for the covariates listed in the table and schools the male students attended.

^aOral sex more than once, anal sex more than once.

^bTwo categories (no, yes; yes, yes) were combined due to a limited sample size (*n* = 12) for the third category (no, yes).